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FACULTY OF COMMERCE
DEPARTMENT OF ACCOUNTING

BY

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AN ASSESSMENT OF THE EFFECTIVENESS OF COST RECOVERY METHODS FOR
FINANCIAL SUSTAINABILITY IN GOVERNMENT HOSPITALS: CASE OF
PARIRENYATWA HOSPITALS

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF
BACHELOR OF COMMERCE ACCOUNTING HONOURS DEGREE
MIDLANDS STATE UNIVERSITY FACULTY OF COMMERCE

JUNE 2020

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APPROVAL FORM

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DEGREE TITLE: BACHELOR OF COMMERCE ACCOUNTANCY (HONOURS) DEGREE

DATE PRESENTED: JUNE 2020

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DEDICATION

I dedicate this work to my husband Claudios Muserere for all the love, support, believing in me and encouraging me each day. Not forgetting my little sister Milliscent Pedzisai and all my family and friends who have given me unwavering support during the period of my studies.

ABSTRACT

This study sought to assess then propose an effective cost recovery method for financial sustainability in government hospitals. The research problem was serious deterioration of infrastructure and shortage of medical equipment in government hospitals due to lack of funding. The main objective was to assess and propose an effective cost recovery method for the financial sustainability in government hospitals. The reviewed literature specified that traditional costing systems have been abandoned and nowadays activity-based method (ABC) is being used by some hospitals as a cost recovery method that aid financial sustainability. Purposive sampling was used selecting the participants. The research approach used was a case study and a mixture of both quantitative and qualitative methods were used. The population for this study was made up of employees of Parirenyatwa Hospitals, MoHCC, CIMAS and PSMAS medical aid societies. The sample was 112 participants, only 110 responded. Telephone interviews, emails and questionnaires were the tools used to gather information. Descriptive statistics were computed and chi squared and Pearson exact tests were calculated using STATA 16. The study identified poor leadership, government policies, organisational culture, financing complications, economic hardships facing the country, as some of the existing challenges affecting cost recovery. Conclusions drawn were that there is room for improvement in the way the government hospitals are conducting their cost recovery procedures and processes. The research recommended the government and MoHCC to invest in automation for costing and billing of services and ABC costing adoption. The government is further recommended to engage in policy monitoring and evaluation in the health sector so as to get immediate feedback on the effect of its policies on institutions like hospitals. Further studies are needed to explore financial sustainability in the health sector.

ACKNOWLEDGEMENTS

Initially, I would like to thank God almighty for giving me guidance through my studies. I also extend my sincere gratitude to the following people, for their priceless support and guidance throughout the research study. Mr T. Machipisa, my supervisor who patiently assisted me in coming up with this polished work, my colleagues Mr L. Tachiona, Mr R. Masikondo and Miss S. Mukotsanjera for their moral support and encouragement. Additionally, to thank all respondents from Parirenyatwa hospitals took time from their jobs attending to my questionnaires and accepting the interviews giving information.

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LIST OF ACRONYMS

| | |
|-------|--|
| ABC | Activity Based Costing |
| AHFoZ | Association Health Funders of Zimbabwe |
| CEO | Chief Executive Officer |
| CERs | Cost-Estimating Relationships |
| COG | Cost of Goods Sold |
| ICD | International Classification of Diseases |
| MFIs | Microfinance Institutions |
| MoHCC | Ministry of Health and Child Care |
| PCA | Parametric Cost Analysis |
| PGH | Parirenyatwa Group of Hospitals |
| TDABC | Time Driven ABC |
| WHO | World Health Organisation |

CHAPTER I

INTRODUCTION

1.1 Introduction

This chapter serves to provide an overview introduction to the study. The study highlighted the background of the study, statement of the problem, significance of the study, its limitations, delimitations, assumptions and the chapter summary.

1.2 Background to the study

The study seeks to assess the effectiveness of the cost recovery methods for financial sustainability in government hospitals in Zimbabwe. Lucey (2000), explains that cost is the sum of expenditure actually incurred on, or attributable to, a stated item or activity. The method of recognizing, analyzing and accumulating cost components to a product/service which helps estimate the value of providing a service or manufacturing a product is stated as cost accounting, T. Lucey (2000). Therefore, cost recovery is concerned with the ability by an entity to recover the full value of resources, which would have been used on production of products or provision of service. Practicing best costing methods in public hospitals, will aid in planning and control of costs, monitoring the cost per patient/services rendered. Transparency of hospital performance is enhanced showing true reflection of budget spending, leading to good financial sustainability. Provision of public health services in Zimbabwe has been the responsibility of the state through the Ministry of Finance and Economic Development. However, with increased scarcity of resources there have been shortages of medical drugs and consumables. In government hospitals, there is need for scrutinisation of the ability by public health institutions to recover costs incurred for enhancement of financial sustainability. Governments worldwide use different costing methods. Lutilsky et al (2016), Doris and Joanna (2007), and McPake et al (2011) identified that developed countries like United States, Germany and Finland are using bottom-up, top-down and step-down costing as a costing recovery option for hospital service delivery. The reasons for this costing recovery option is minimising risk of undercharging and government expenditure and optimising. Parirenyatwa uses different methods or a combination of the top-down costing and step down costing. According to Worldometer (2020), the estimated population of Zimbabwe is 14,851 million, with 52% women and 48% men and a life expectancy at birth of 50 for women and 45 for men. The World Bank (2014) projected the simple birth rate at 35 per 1000 and death rate at 10 per 1000

and expected population growth of 3%. Geographically 70% of the people live in rural areas and 30% in urban parts, Zimbabwe National Health Financing Policy (2018). In 1996 Zimbabwe announced the Health Services Fund where government took a position to improve liquidity in government hospitals, but to date there is evidence that service delivery deteriorated, World Health Organisation (2018). The health referral system in Zimbabwe scrambled in 2008 leaving most geographical areas with very few ill resourced health facilities, United Nations Programme on HIV/AIDS (UNAIDS) (2014). Such situations bring into question the health sectors enthusiasm to adopt costing methods and cost recovery methods that ensure good service delivery. However, Niven (2002) disagrees that the position that governments improve revenue collection is through proper costing methods, because they often take several years to develop and are different to measure. This research seeks to address this dilemma. Most of the literature is centred around Europe and emerging economies such as South Africa but there is no in-depth research on costing methods in the health sector in developing countries like Zimbabwe as circumstances are different. This research seeks to bridge this gap. It shall provide direction for the government to the health sector of Zimbabwe in cost recovery decision making. Government hospitals have been reported to have failed to secure basic essential medical resources resulting in: an eroded infrastructure with non-functioning medical equipment, laundry machines, kitchen equipment and boilers; and lack of essential medicines and medical consumables. The health system breakdown has been worsened by outbreaks such as cholera, measles and typhoid epidemics between 2008 and 2019, by poor maternal and child health services and by consistently falling but still-high numbers of people living with HIV, WHO (2018). This has resulted in deterioration of quality services in government hospitals. The government has introduced policies of free services to maternity, below five years and above sixty-five years' patients. Since the middle of 2014

public hospitals are failing to get the required funding from the government, causing serious depletion of both infrastructure and medical equipment.

1.2 Statement of the Problem

There is serious deterioration of infrastructure and shortage of medical equipment in government hospitals. These problems emanate from lack of funding to finance infrastructural development and procurement of medical equipment. This is against backdrop of government hospitals charging for services rendered. This has brought about the question whether the fees charged enable these hospitals to recover costs incurred in the service provision. Hence there is a need to assess whether the costing methods employed in government hospitals enables sustainability in government hospitals.

1.3 Research objectives

Main objective:

1.3.1 To assess then propose an effective cost recovery method for the financial sustainability in government hospitals.

Sub objectives:

1.3.2 To explore the challenges faced by government hospitals during the cost recovery process.

1.3.3 To investigate factors that influence cost recovery process in government hospitals in Zimbabwe.

1.3.4 To evaluate financially sustainable methods for improved cost recovery process in government hospitals.

1.4 Research questions

Main Question:

1.4.1 How effective are cost recovery methods on the financial sustainability in government hospitals?

Sub Questions:

1.4.2 What are the challenges faced by government hospitals during the cost recovery process?

1.4.3 Which factors influence the cost recovery process in government hospitals in Zimbabwe?

1.4.4 How can cost recovery process be improved to enhance financial sustainability in government hospitals in Zimbabwe?

1.5 Hypothesis statement

1.5.1 H0 Cost recovery methods do not have an effect on the financial sustainability of government hospitals.

1.5.2 H1 Cost recovery methods have an effect on the financial sustainability of government hospitals.

1.6 Significance of the study

The research is meant to benefit the following stakeholders:

1.6.1 The student

The study is to be done in partial fulfilment of requirements of Bachelor of Commerce Accountancy Honours Degree and providing the researcher with research skills for future

academic research and will enhance the researcher's understanding in the field of accounting. It will also apply knowledge acquired over the years at Midlands State University in moulding practical solutions applicable to the industry. Completion of studies.

1.6.2 The University

If the outcome of the research is splendid as will be determined by the supervisor, the university will get credit and hence use the material as reference to other students.

1.6.3 The board of knowledge

The findings are intended to benefit the government department by implementing policies that will promote sustainable cost recovery processes by government hospitals. Parirenyatwa hospitals will be able to enhance viability within the operations of the organisation by adopting recommendations that shall be suggested for use in future management systems. Addressing the gap in the area and being helpful in the community.

1.7 Delimitation of the study

The research project was focusing on the cost recovery methods at Parirenyatwa Group of Hospitals in Harare. PGH comprises of Mbuya Nehanda Maternity hospital, Sekuru Kaguvi Eye-Unit, Annexe hospital and main Parirenyatwa hospital. The period of focus will be between 2018 to 2019 which represent more recent practices within the area being researched. The study sample will be 112 people comprising 3 Directors, 2 chief accountants, 12 accountants, 14 accounting assistants, 9 departmental supervisors, 5 medical doctors, 10 Nurses, 21 Accounts clerks, 20 ward secretaries, 1 claims assessor, 3 Nurse aids, 5 MoH staff, 5 members from medical aid societies and 2 accountants from private sector. The sample involved all departments which play different roles within the area of study.

1.8 Limitations of the study

1.8.1 Withholding information.

Government official confidential policy may affect the participants giving necessary information. The researcher has sought for approval from high authority so that those participating are able to respond freely.

1.9 Chapter Summary

This chapter has introduced the topic and provided the foundation on how the whole research would be carried out. Chapter two looks at the literature review, conceptual framework and empirical review of the study, while chapter three focuses on the methodology used, chapter four concentrates on the data gathering and presentation and chapter five gives the summary and conclusions of findings then highlighting the recommendations.

CHAPTER II

LITERATURE REVIEW

2.0 Introduction

This chapter is focused at reviewing the theoretical framework, the conceptual framework, empirical review and other related literature studied and lastly shows the methods of cost recovery and collection being used at Parirenyatwa Group of Hospitals (PGH).

2.1 Theoretical Literature

2.1.1 Agency Theory

Agency theory is a relationship that is explained while resolving different matters between shareholders (principals) and the company executives (agents), Kopp (2019.) In addressing the key problems of conflict of interest, Madison (2014), Glinkowska and Kaczmarek (2015) suggested that stewardship theory is relevant in fixing and guiding the managerial behaviour if engaged, thereby achieving management of the resources of the organisation. In all public sector entities, the government is the principal and the Chief Executive Officers (CEO) and the other executives are the agents who are hired and given responsibility of the principals' assets and to perform services on behalf of the government.

2.1.2 Institutional Theory

The key institutional theorists were Meyer & Rowan, DiMaggio & Powell, their assertions were that an institutional environment highly impacts the formal structure development more than market pressure, Mohamed (2017). Lammers and Garcia (2017), postulate that institutional theory pursues in explaining the guidelines and requirements necessary for organisations to adapt in order to attain funding and legitimacy. It is noted by van

Wijk et al (2019) that Institutional theory focuses on the macro levels, concepts, values, behaviours and weighing the situations and activities in organisations considering the awareness of rules, standards and principles instated socially. Quite a number of projecting institutional academics Munir (2015); Lounsbury & Hirsch (2015) and Hudson et al (2015) have supported what was particularly challenged by Willmott (2015), that institutional theory critically has lack of clear, crucial engagement with authority, inequality, and control, Lok (2019). Mohamed (2017), indicates some researchers like Kennedy, Fiss, Walgenbach, Etzion, Ferraro, Tolbert, and Zucker criticized the new institutional theory. Phillips et al (2015) also opposed the theory since it "focused on effects completely ignoring the institutionalization process." Parirenyatwa Hospital should adhere to its own institutional theory focusing on the norms, behaviors and activities of the hospital.

2.1.3 Absorption Costing Theory

Drury (2018) explains that absorption costing systems is split into two, traditional costing and Activity Based Costing (ABC) systems where both assign indirect costs to cost objects. Gersil and Kayal (2016) define absorption costing technique as determining total cost of a product, considering both variable and fixed costs. Drury (2018), Lutilsky et al (2016) and Gomes (2019) explained that traditional costing systems have been established in the 1900s and nowadays also use cost allocations, known as activity-based methods (ABC). Bertoni et al (2017) clarify that cost accounting methods have advantages to society by enhancing efficiency in services rendered, guarantees improved governance of hospital resources and showing clear picture of how public funds are managed. Gomes (2019) highlights that information produced by absorption costing system is important to a larger extent to most institutions which do not have good efficient methods or basic accounting or good cost systems as these institutions may not be able to form parameters of final prices. Bertoni et al (2017) disagrees that ABC is likely

to face high market risks and steeper costs if activities develop over time in complex institutions as quality of data given may not suit costs generated by ABC method. However, Bertoni et al (2017) advises that traditional costing methods show steady and less expense in institutional unit changes than activities. Most scholars are of the opinion that resorting to ABC is the best as it is adaptable to the changing environment and assists managers in decision making.

2.2 Challenges faced by government hospitals during cost recovery processes

2.2.1 Differences in clinical caring practices

Costing information is created by disciplined workers; doctors, radiographers, nurses and physicians, most have no or slight financial knowledge, Berger and Mester (2015). US health care diagnosis and procedure codes were updated in 2015 latest 10th version of International Classification of Diseases (ICD), while changing of structure, number and variety of codes in healthcare and there are risks leading to more changes in claims-based procedures of health services, Mainor et al (2019). WHO (2018), added that diseases are coded using numbers and every individual professional is to follow standard coding system when a patient visits the hospital every time allocating the number aligning with diagnosis code. If professionals fail to correctly code, the challenge is that those who perform billing procedures of the patient may capture it incorrect due to wrong diagnosis inputted resulting in claims being rejected by the medical aid society upon submission. This results in not recovering costs incurred on the claim.

2.2.2 Hospital financing complications.

Historically hospitals were financed by governments through budget allocations from treasury, WHO (2016). In Zimbabwe from year 2007 going backwards, all government

hospitals were banking funds in one central account which was maintained by treasury, Ministry of Health and Child Care MoHCC (2015). The movement financial system was reduced in 2009 going onwards where Health services fund act was implemented and hospitals were permitted to retain funds paid by patients and use it to supplement the budget from treasury, World Bank (2015). Even back then costing system of hospitals was problematic considering that the main variables were inaccurate WHO (2018). As hospitals are government agencies, fees paid to the hospital are essentially far less from medical aid and other third-parties, Carroll and Lord (2016). Hospitals in Zimbabwe, private and government are guided by Association Health Funders of Zimbabwe (AHFoZ) when setting tariffs for services rendered. Rates are formulated using traditional costing method to apportion costs to departments in anticipation of assessing costs of each department, but the challenge is that it is inaccurate, Whitehouse (2018). If donor funds and donated goods are not received directly by the benefiting hospital, costing system of hospitals will be very biased OECD (2018). Parirenyatwa hospital management was allowed to retain funds paid by patients and use it to supplement the budget.

2.2.3. Nature of Hospital Emergency services

Most services rendered in hospitals are emergency in nature, this resulted in failing of costing systems in hospitals, Siedlecki et al (2018). Pegnato (2016) also mentioned that healthcare systems gradually face trials due to emergence of chronic situations, complex treatment routines and improvements in medical knowledge which hinder patient care. Enquiry as to whether health systems will be financially sustainable in the upcoming period is commonly raised in health policy discussion, Holland et al (2018). The problem is expressed in terms of ability by government and private sectors to finance healthcare in aspect of increasing cost pressures, with population ageing, new technologies and consumer expectations

of healthcare coverage and quality being the regularly mentioned challenges. Even though concept of 'financial sustainability' seems to be essential to health policy argument, it does not form part of best health system objectives, WHO (2018).

2.2.4 Culture in government institutions

Most African governments have nature of low motivation in conducting work and lack of responsibility resulting in poor financial sustainability and poor service deliveries. Self-sustenance has always been desired position in government hospitals and other government institutions. Lack of appropriate performance evaluation, management of processes and corruption has always hindered managers in public institutions (hospitals included) from implementing accountable, comprehensive and effective financial systems. The Agency pattern created culture of laziness and decline in cost accumulation and financial self-sustenance. However, there is need of addressing institutional theory that will address behaviours and values of workers.

2.2.5 The existence of Government policies

Government institutions are controlled and regulated by government, welfare of stewardship is enjoyed or suffered by government. Government policies address bigger objectives than just institutional objectives, some may result in poor recovery of costs and poor financial performances. Some cases, government may create policies which allow consumption of essential services for free without recovering costs incurred directly from patients. National health financing in Zimbabwe (2015) stated that the main legislation for health is the Constitution of Zimbabwe Section 76 (1) mentions that every citizen and permanent resident of Zimbabwe has right to access basic healthcare services, including reproductive health services. So, any person has right to claim the right for healthcare if they are in any situation in provisions of section 76 (1) to section 76 (3). Hence no one should be denied health services

under what circumstance. Costing process in government hospitals will be created on assumptions since some costs may be difficult to ascertain. According to WHO (2018), combination of mechanisms used to finance health care may also affect both country's capability to make adequate revenue and effect of healthcare expenditure on the economy. Efficient cost recovery processes have potential of increasing health services costs to patients unless government subsidies.

2.2.6 Budget preparation and governance of Health Financing

Parirenyatwa hospitals face difficulties making plans of reducing expenses as budget forecast/estimates will be done within a year. Parirenyatwa hospitals being the biggest in Zimbabwe cannot rely on budget prepared within the year. Whitehouse (2018), alluded that the most difficult part of creating a plan within a year as hospitals have to account for costs of service, but even the experience of visiting the patients to the hospital should be valued as well. In addition, size, products, quality, service and more have to be considered in describing costs expected to be attained by the hospital. Whitehouse (2018) added that bigger hospitals have a tendency of having higher expenses for each year.

2.2.7 Inflation and exchange rate

According to Zimstat Data (2018), Zimbabwean inflation level rose from 8.5% in 2014 to 59.39% in 2019. Net effect of an environment is reduction in disposable income of households found out by Anjom and Karim (2016), a hyperinflationary environment has impact on implementation of cost recovery methods in government hospitals like Parirenyatwa. Efficiency of private sector is constantly updated in line with inflation unlike public sector. Government institutions due to bureaucracy, wait for meetings and debates to be conducted hence taking much time to implement. Suppliers use higher exchange rate than the government which will only use gazetted rates. For example, suppliers may use parallel market rates of

May 2020 IUSD: RTGS\$45 whereas government uses IUSD: RTGS\$25, this will affect cost recovery as debtors will pay less than what government has actually been charged by suppliers.

2.3 Factors which influence cost recovery process in government hospitals in Zimbabwe

2.3.1 Organization Culture

Organisational culture is crucial in any institution. Engaging good values and efficient traditions in organisations help in best implementation of cost recovery processes bringing good financial sustainability to PGH. According to Dark et al (2017), organisational culture refers to essential values, and common traditions that influence behaviour in organisation and is shown to new associates. If there is staff involvement and consistency in doing work, this will achieve organisation's performance. Motivation is needed and encouraging team spirit and training to staff. Murarimbinda (2019) clarified that expertise of organisation depends on inclusion of market condition and organisational culture. Dark et al (2017), highlighted that unexpected change that arises from external factors as well as limited organisational control and limited skill for practical planning, can poorly impact organisational culture.

2.3.2 Market conditions

Whitehouse (2018) postulates that defining the market is a vital part of hospital business, but clarifies that most patients have less or no choice on which hospital to visit when in crises. What was said by Whitehouse, was for the US market as for developing countries like Zimbabwe, due to hyper inflationary conditions determining the market may be cumbersome. Datar and Rajan (2018), suggests that managers can also use cost-based approach (adds mark-up component to cost) rather than market-based approach for long run decisions. Datar and Rajan (2018) further explains that mark-up element is generally flexible, depending

on behaviour of consumers and competitors thus market conditions eventually regulate markup element. Murambinda (2019), mentioned that public healthcare sector operates in market conditions where there is distorted competition. Parirenyatwa hospitals should make use of market-based approach as there is competition with private hospitals. In terms of charging private wards D Floor and B12, Parirenyatwa managers should charge using market rates of private facilities. The government and AHFoZ may not have much interference in detecting what will have to be charged only general ward fees are subsidised.

2.3.3 Commitment of Managers and employees – Human Interventions

Wahab et al (2018) postulates that, top management support is key as it drives employees to commit thus enabling implementation of ABC system. Implementation of ABC system in public sector require training and continuous learning to be effective and successful for all staff to achieve financial sustainability. Wahab et al (2018), explained that managers and employees' commitment is crucial as some managers and employees may not be skilled enough and knowledgeable about ABC concept as the method may be new to staff. Wahab et al (2018), also highlighted that the degree of effectiveness of cost data can be measured in relation to strategic decision making and process developments. Achieving financial sustainability of Parirenyatwa hospital, managers should engage AHFoZ and private sectors often to aid in training so that staff is well skilled and competent at Parirenyatwa hospitals.

2.3.4 Political Environment

Murambinda (2019) mentioned that the role of political leadership is significant in health sector. Murray (2018) added that political leaders are responsible for most democratic accountability in public sectors. Political pressures might make it tough to enforce level of charges that are realistic for advanced quality private upkeep. Murray (2018) also highlighted that managers should know differences of political interfering and political command when

considering welfare of patients. Assisting in cost recovery of incurred costs for exempted cases, Parirenyatwa managers should make regular follow up of payments from relative departments assigned to make payments, like social welfare so that financial sustainability is enhanced.

2.3.5 Proportion of services which are paying services

Parirenyatwa Hospitals being the biggest institution that offers services to referred patients, has high demand for critical and severe cases for treatment. Some patients are charged a set fees while outstanding group of patients are exempted as of poverty or stated distinct groups for example, below five years, old age, maternity cases and renal cases are free. According to Shepard et al (2000), effectiveness for collection is highest when hospital systems are planned to enable implementation of fee payments. Retaining of fees by hospitals may be difficult at times, hence there is need for more follow ups on exempted bills to sectors who would have committed to pay. Nolan and Turbat (1995), mentioned that a "controlled experiment" in Cameroon indicated consumption by the poor has certainly risen, and that growth has been consistently greater than it was among rest of the population.

2.3.6 Collection efficiency

Shepard et al (2000), postulated that collection efficiency is fraction of fees payable which are really collected and settled to hospital's account. For collection efficiency to be achieved there is need for setting up or devising systems that will tighten and make patients pay because when patient gets admitted it becomes difficult getting payments done, thus achieving financial sustainability through revenue collection. Shepard et al (2000) gave an example that for paying group of patients, they may firstly get registered and get a receipt before services are rendered thus lab tests, x rays done and drugs issued. Putting such systems, Parirenyatwa hospitals will be achieving cost recovery methods effectiveness as payments will be done sooner for service with correct costing done.

2.3.7 Health Insurance

Insurance sector is mostly dominated by private health insurance which only offers financial assistance to members contributing thus about 10% of population, National health financing policy in Zimbabwe (2015). Membership of contributions of these funds is voluntary. Engaging cost systems in hospitals has been limited by use of tariffs on unit cost of products and services. Tariffs are created and formed by AHFoZ and health insurers make payments using tariffs. Medical Aid Societies are affiliated to AHFoZ but it is a problem for PGH to formulate their own costing tariffs. Input from doctors, radiographers and nurses to name a few is needed as they know procedures conducted at hospital. Medical personnel may seem reluctant in exercise and would prefer hospitals to follow AHFoZ tariffs even if some procedures may need to be higher than those determined. Tariffs usually fail to meet or cover unit costs compounded by hyperinflationary economic environment. It is a big challenge attaining collaboration between stakeholders, Korosec (2013).

2.3.8 Human Resources

Due to economic situation in Zimbabwe, most people are unemployed. Posts in public health sector remain a challenge internationally. National health financing policy in Zimbabwe (2015), stated approximately 10% of Zimbabwean populace is officially employed and nearly 70,6% are informally employed. Institutional integrity is compromised by high staff turnover because monetary and exhaustion due to overworking. This hinders cost recovery process implementation as most staff need to be involved in costing services. Lack of knowledgeable staff and constant training also has influence on service delivery, Thai and Drabkin (2007).

2.4 Improvements towards financially sustainable cost recovery methods in government hospitals

Improvements of cost recovery require investment in practical analysis of hospitals and inputting process flow of charging consumables and services. Addressing problem of multi-disciplinary workers at hospitals, there is requirement for training accounts and medical staff on need for cost recovery procedures, Fineberg (2018). Costing models improved to accommodate desired improvements in cost recovery process for hospitals, Bloechl et al. (2017).

2.4.1 Diagnostic models

Diagnostic models allow managers identifying possible problems within crucial processes Bem et al (2019). High cost services or procedures are targeted for cost reduction by re-engineering or process enhancement, Alan (2017). Diagnostic models established most general form of ABC because of lower cost and having no effect on existing financial management system. ABC is an accounting methodology that assigns costs to activities – rather than products or services, allowing resources and overheads costs to be correctly allocated to products and services that consume them Ettelt et al (2007), Drury (2018) and Lutilsky et al (2016). ABC has become best method to categorize profitable and unprofitable customers. Identifying the profitable customers for Parirenyatwa like private patients prompt follow ups on payments can be made. ABC customer effectiveness analysis is created on simple principle “customers consume activities”. Ettelt et al (2007) mentioned that it is not uncommon to find with ABC that 80% of overhead activity cost is spent by 20% of the customers. Parametric Cost Analysis (PCA) is costing process integrating a great quantity of cost drivers into a simple linear regression model, Favato and Mills (2007). PCA is a method of estimating the cost of a product by means of mathematical relationships to additional factors of the product, such as

labour cost. These models or cost-estimating relationships (CERs) are occasionally found by regressing whole cost of a product on a set of variables that signify product's presentation, costs of parts and labour, Favato and Mills (2007). Authors, Klein and Tait (2015) used stepwise regression to select, from the eleven selected as possible cost drivers, these statistically important variables for a linear equation. The authors also presented reality of cost uncertainty of a trade-off of confidence and expected time.

2.5 Conceptual Framework

Adom et al (2016), referred to conceptual framework as a structure which explains expected development of the phenomenon to be deliberated. They went to say necessary theories and empirical studies which are used in helping researcher in identifying opinions and views to be considered were linked. Górnik-Tomaszewski and Choi (2018), clarified that conceptual framework is taken to be theory of accounting, where fundamental concepts and objectives are set assisting in development of accounting standards. Wald and Daniel (2019) and Mugizi (2019) clarified that it is presentation model involving relationships of variables and hypotheses that gives guidance to study and when confirmed to give direction of relations hence conceptual framework will be theory. Adom et al (2016) indicated conceptual framework may be presented graphically or in narrative form indicating key variables and assumed relationships of them. However, Muguzi (2019) argues that conceptual framework does not necessarily mean fixed diagram but rather reveals analysis carried out in study.

2.5.1 Conceptual Framework diagram

The following diagram tries to present conceptual framework to guide the researcher.

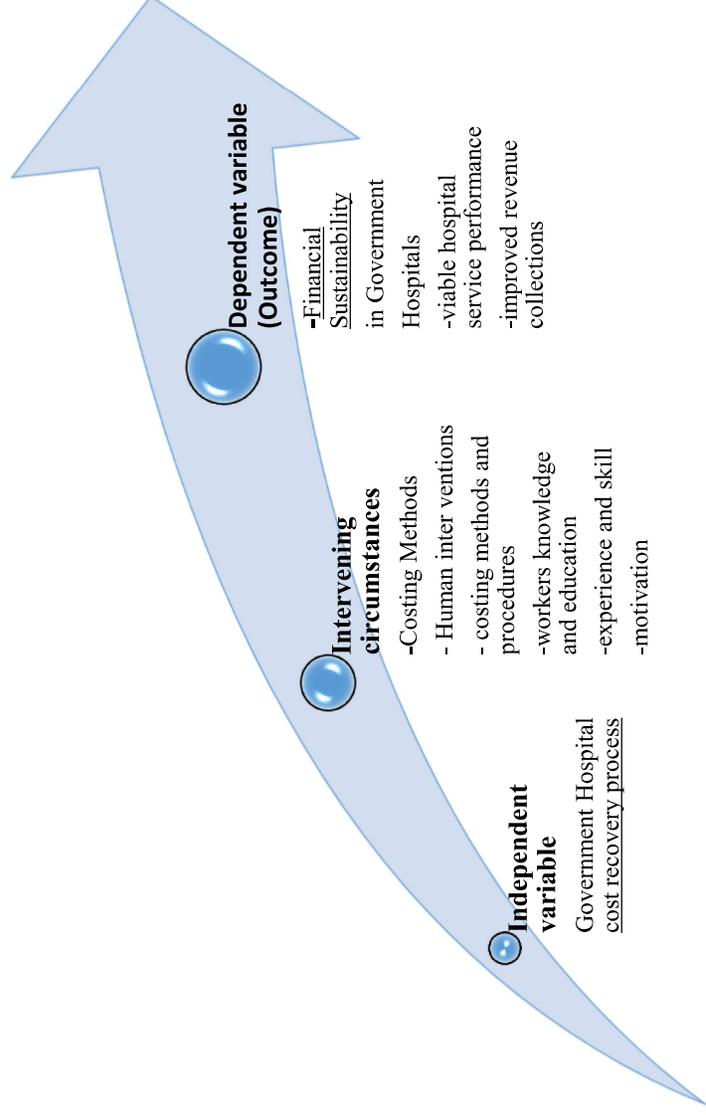


Figure I: Conceptual Framework

Source: Researcher's Design (2020)

2.5.2 Independent variable

PGH is a government hospital where funds paid by patients are eventually used towards provision of services. In this study, independent variable is government hospital costing system for cost recovery. Where Azzolini (2013), explains cost recovery as a process when institutions pursue to reimburse time, materials, labour and operating costs incurred in coming up with service or product cost. It is the method of recovering expenditure of costs incurred by an organisation for example start-up costs. Bertoni (2017), Lutilsky et al (2016) and Carroll &

Lord (2016) postulate that introducing ABC is essential and a necessity for successful effectiveness and increases efficiency of healthcare system, thus by applying some skills and procedures of cost allocation in hospitals and guarantees good usage of hospital's resources showing transparency of public funds spending.

2.5.3 Intervening circumstances

There is need for involving health workers in cost build-up of services, asking staff to rate their job, encourage teamwork, make them have control of budget, giving room for workers to give feedback, training of workers and regular checks of physical fitness. Florina (2017) described effectiveness as ratio of results achieved and the one programmed which indicate success attained by using resources to achieve objectives. Rosenberg Hansen & Ferlie (2016) acknowledges that internal resources of organisation have impact in increasing effectiveness than external. Management may conduct training to achieve efficiency and effectiveness of Parirenyatwa. With experienced or well-equipped staff this enhances cost effectiveness and increase financial sustainability of PGH. Above all intervening circumstances, Maslow back in the days 1943 stated that workers are motivated to attain certain needs. If there is motivation of workers, there is efficiency and effectiveness in performing the duties and achieving the financial sustainability goal. Even if cost recovery methods are implemented, experienced motivated human input is crucial to attain output of financial sustainability.

2.5.4 Outcome

Output of conceptual framework in this case is financial sustainability of government hospitals. Having cost recovery system (independent variable) which is effective, and adequate intervention by employees and management (intervening circumstances) will determine the financial sustainability (dependent variable) of the hospital. Akinyi and Odundo (2018) mentioned that financial sustainability assists institutions to sustain general operations,

guarantee nonstop service delivery and advance development of infrastructure. Lohri et al (2014), emphasised saying maintaining financial sustainability is vital in that all short-term and long-term financial costs are considered and that measures are in place for attaining regular incomes to cover these costs.

2.6 Cost recovery and financial sustainability

Net profit is equal to revenue minus cost of goods sold (COGS), operating expenses, and taxes and interest, Wood and Sangster (2008). Reducing operating expenses or COGS can increase net profit, at least in short term, but a business must be cautious not to cut back much that sales are badly impacted by low production quality or failure to meet customer demand, Wood and Sangster (2008). Wafula (2016), Nyamsogoro (2018) and Wafula et al (2017) indicated that from financial point of view financial sustainability is based on capacity by the entity to collect sufficient revenue to cover its expenses Operational self-sufficiency stipulates if adequate revenue has been attained to cover hospital's direct costs, apart from cost of capital but including actual financing costs by keeping hospital financial accounts and track accepted accounting practices that offer full transparency for income, expenses, loan recovery, and potential losses. Akinyi and Odundo (2018) supported that financial sustainability assists organizations to sustain general procedures, ensure constant delivery of services and advance in infrastructural development. Lohri et al (2014), argues saying revenue that is collected from rates charged may not be adequate to cover all costs hence financial sustainability is not enhanced, to escape financial disappointment of company some tactics must be visualized to progress and attain financial cost recovery. This means that there is a negative relationship. Wafula et al (2017), specified that cost recovery process narrates that profits are positively correlated with activities in organisations. Wafula et al (2017) proposes that on studying profit structure associated in Australia banks, if assessments of costing methods on profitability and

financial sustainability of institutions, showed that cost recovery was crucial to profitability. Wafula (2016), mentioned that there is a positive relationship amongst profitability and financial sustainability in institutions, as profitability increases financial sustainability also increases.

2.7 EMPIRICAL LITERATURE

An assessment of cost recovery methods for financial sustainability has been a subject of research in last decades. Some research carried out across globe both developing and developed countries came up with following views on the subject.

2.7.1 Cost recovery methods

Whitehouse (2018), clarified that hospitals originate in all forms and sizes, providing dissimilar services, and within diverse local communities and none are the same. Hence, each hospital applies its own method for implementing a cost accounting system for financial sustainability. According to Rauliajitys-Grzybek (2017), Polish public hospitals in Poland were using top-down costing model from 1998 to 2011. Ginoglou (2002), O'Reilly et al. (2012) and Ostadi et al (2019), studied application of ABC method presented by Cooper and Kaplan in 1984 in public hospitals in USA, Great Britain, Germany, Ireland, France, Finland, UK and Canadian hospitals and observed that the countries share some common goals like increasing efficiency, quality improvement and transparency enhanced. More scholars established that, ABC method is practiced in developed countries and most African and developing countries like Zimbabwe are still using traditional methods, top down and step down costing. It could be due to factors like organisational culture, market conditions, political environment and human resources. O'Reilly et al. (2012) highlighted that efficiency of difficult healthcare institutions is improved if ABC method is used and financial sustainability is achieved. Bertoni et al (2017), supported that in Italian and Croatian hospitals managers prefer using ABC methods to achieve

financial sustainability. A study done in Haiti by Kaplan and Shah (2018) argued that implementing Time Driven ABC (TDABC), a modern costing method effectively measure costs of services in hospitals even in disadvantaged economies than ABC. There is need to understand costs of resources in delivering services in low-income countries since every hard-earned dollar should be fully utilised to ensure high-quality healthcare is availed to every citizen. Olukoga (2007), Hansen et al (2000), Flessa et al (2011), and Cunnama et al. (2016), indicated that some hospitals in South Africa, Zimbabwe and Kenya use bottom up, top down and step down costing methods. Only in South Africa, Oseifuah (2013) noted that Buffalo City Municipality in Eastern Cape Province has resorted to using ABC method as a cost recovery for achieving financial sustainability and have been able to implement. Nolan and Turbat (1995), highlighted that several African countries like Equatorial Guinea, Guinea-Bissau, Kenya, Ghana, Lesotho and Sierra Leone in introducing cost recovery government dedicated to increase or not decrease budgetary allocation to health. Measuring actual cost of delivering care to a patient helps ministries of low-income countries decide best way to allocate resources optimizing quantity, quality and health coverage. If best costing method ABC is used, cost recovery is enhanced and improving financial sustainability of PGH.

2.7.2 Financial sustainability

Williams (2013), Mephail et al. (2012) and Bowman (2011) enlightened that organisations with good financial sustainability are capable of grabbing opportunities and easily adapt to unanticipated challenges without relying on external sources. Bourke (2015), Tehulu (2013) and Vaughan et al (2014) analysed unbalanced pieces of data collected from 23 institutions in East Africa from 2004 to 2009, and found that financial sustainability correlated positively with level of leverage and liquidity. Researches were focused on financial institutions and liquidity ratios as factors of financial sustainability and note health sector. A

study by Holmstrom and Tirole (2010) found a negative and significant relationship between level of liquidity and financial sustainability. On financial sustainability of companies Paxton (2012), stated that using mixed data set while examining operational expense, leverage and outreach found that in developing regions except Africa were sustainable. Same author reported that MicroFinance Institutions (MFIs) from South East Asia are fairly sustainable while South Asian MFI is not. Nyamsogoro (2018), Kimondo (2012) and Vaughan et al (2014) found that out of 424 observations 80.2% of microfinance sector were relatively healthy and financially stable, while some studies on governance and accountability concluded that key factors impacting on financial sustainability of institutions in Tanzania, Kenya (Murang'a Municipality) and other African countries respectively comprised regulatory command overseeing institutions, interest rate, liquidity levels, individual lending model used and leverage of institutions. Quite a number of scholars have mentioned that financial sustainability correlates with liquidity in MFIs in developed countries and nothing has been researched in the health sector. Health Research by ZIPARU (2014) was tasked to conduct research on governance, accountability and review of financing of semi- independent health institutions in Zimbabwe, Chigumira et al (2014). Qualitative research conducted in Zimbabwe was not quantitative where, procedures for pooling and channeling funds concluded that, increasing overall funding for health to reduce financial burden of those who have no access to quality care at present, improving budget allocations to health towards Abuja commitments and adding collections from reserved taxes as identified in prior MoHCW (2015) work. It was noted that, Zimbabwe has no national mandatory/contributory health insurance, only few community-based health insurance schemes whose equity, portability, sustainability is not evaluated and private voluntary insurance (MAS) that cover a small part of the population, with high transaction costs, late payments and weak protection for subscribers, National health financing

policy in Zimbabwe (2015). Different financial ratios are used to measure liquidity position of an institution but the most common financial ratios used are customer deposit to total asset and total loan to customer deposits, Abor (2010). Muriu (2011) added that besides, a higher debt ratio can improve rate of return on equity capital during good economic times. Studies by Rhyno (2012), Berger and Mester (2015) and Wafula et al (2017) noted that institutions which have high capital structure with equity and higher debt, tend to be more profitable and highly leveraged. The financial viability does not mean that an institution depends on its own funds and that increased liquidity level is not the result of administrative efficiency, argued Sanderatne (2013) and Bourke (2015). Wafula (2016), Donhoe (2010) and Kinde (2012) also noted that it is important for MFI to create a capitalization plan before beginning to look for new shareholders. Accordingly, liquidity levels should be linked to bank profitability. The researchers concentrated on MFIs and banks on capital structure and debt concluding to be profitable and leveraged nothing was studied concerning hospitals financial sustainability. Bem et al (2019) conducted a study titled Hospitals' Financial Health in Rural and Urban Areas in Poland, and found that hospital financing guarantees sustainability. They established that there is no difference in financial condition between rural and urban hospitals and type of activity can be key driver of better financial performance. Hence, in government hospitals in Zimbabwe this does not actually be the case as financial conditions differ in each area.

2.8 Gap Analysis

Researchers Rhyno (2012), Berger and Mester (2015) and Wafula et al (2017) concentrated on several factors of financial sustainability in companies which include capital structure, profitability, liquidity and performance of institutions. Nyamsogoro (2018), Kimondo (2012) and Vaughan et al (2014) studied about Micro Finance Institutions (MFIs). Other available papers concentrated on service provision of hospitals. Financial

performance/sustainability was mainly researched on institutions like banks, micro finance companies and other financial players. Financial sustainability of hospitals has not been researched by many people, Bem et al (2019) researched on hospital financing/funding in rural and urban hospitals in Poland. Most hospitals in developed countries have adopted ABC method as a cost recovery method and more African countries are still using top down and step-down costing in health sector. There is published information on financing of government hospitals but issue of cost recovery systems on sustainability of government hospitals is relatively new. Research was conducted to contribute towards closing the literature gap on the effects of cost recovery methods on financial sustainability of government hospitals.

2.9 Chapter Summary

This chapter presented related literature on effects of cost recovery methods on the financial sustainability of government hospitals and included theoretical framework, conceptual framework and empirical review. Next chapter gives the research methodology which was used and research instruments employed to come up with qualitative findings.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction

This chapter will look at methods used in collecting and analyzing data. It describes philosophical framework, research design adopted, population and sample to use, instruments employed and data collection procedures, validity, reliability and data presentation, data analysis procedures to be used.

3.2 Research Philosophy

Research philosophy refers to the structure of an inquiry done to make sure that evidence gathered allows the researcher to respond to study questions or test hypothesis clearly as possible, Sekaran (2003) and Taylor et al (2016). Saunders et al (2016), Creswell (2014) and Simon (2011) mentioned that there are essentially two views to research process dominating literature, quantitative (positivism) and qualitative (phenomenology). The researcher used a mixed approach. Research approach guides the way data of a problem can be collected, analysed and used. Creswell (2017) states that positivism is the belief that social and business world is real and that responsibility of the researchers is to explore the truth that is out there and made up of people's perceptions. Simon (2011) clarified that principles of positivism highlight a high degree of a structured methodology with objectives that can be quantified for statistical analysis. Leedy and Ormrod (2010) argue that in positivism, adequate knowledge comes from confirmation of theories through scientific methods where myths and guesswork is avoided. Simon (2011) postulates that anti-positivism views business and social world as formation of people's mind and takes the view that it is very difficult for researchers to stand

back and be objective. Researchers are subjective because they are part of society and research process. It is noted that quantitative research is hard, unbiased and uses facts and figures while lacking explanatory value. While, qualitative research presents full explanations but is biased. This study applied both positivist and anti-positivist approaches, which entails a pragmatic (action) approach. Thus, entailing that knowledge is from action and learning from outcomes. Research on cost recovery practices in the health sector captured both qualitative and quantitative techniques in capturing scientific evidence, thoughts and feelings of people involved. Answers on cost recovery methods require policy institutions and policy actors to respond and evaluate using a mixed approach as results have to be contributively to a practical improvement of cost recovery methods in the health sector in Zimbabwe. Hammond and Wellington (2014), and Creswell (2017) stated that pragmatism creates fit solutions for a purpose of which a mixed approach is adopted to assist in forming detailed objective findings.

3.3 Research Design and Research Approach

The researcher used descriptive design establishing the nature of condition that is existing and recommendations of best strategies /methods to be implemented. Descriptive design was used to respond questions in questionnaires and interviews. Case study approach was used as the main approach in the research.

3.4 Population and Sampling

The study recruited through purposive sampling, 100 Parirenyatwa hospitals staff and 12 participants from Ministry of Health Head Office, Medical aid service providers and regulators. There were a total of 112 participants comprising: 3 Directors, 2 Chief Accountants, 12 Accountants, 14 Accounting assistants, 9 departmental supervisors, 21 Accounts Clerks, 5 Medical doctors, 10 Nurses, 3 Nurse Aids, 20 Ward secretaries and 1 Claims assessor. Purposive sampling method was used by researcher as the sample has knowledge of PGH.

3.5 Data Sources

Researcher used primary data from questionnaires and interviews were used for collecting data. Questionnaires were based on objectives of the study. Secondary data were used as well, published data from past studies, journals, circulars at PGH, and literature gathered from books by many academics worldwide.

3.6 Research Instruments

Researcher used self-administered questionnaires for primary data, interviews, published and unpublished documents for literature review. Calls were made to PGH management and emails were sent to the medical aid and AHFoZ personnel.

3.7 Data Collection Procedures

3.7.1 Questionnaires

A self-administered structured questionnaire was given to the 112 selected participants, and 110(98%) were returned. Close-ended questions were used, the respondent selected the appropriate answer from the ones provided.

3.7.2 Interviews

Interviews were conducted to get qualitative information to PGH top management and PSMAS participants. The two-way communication interviews give reliable and comparable qualitative data. Researcher did cellphone interviews due to the restrictive measures presented by the pandemic of Covid 19 virus in Zimbabwe.

3.8 Methodological Norms

3.8.1 Validity and Reliability

To ensure validity the researcher used triangulation, member checking, audit trail and ensuring that the sample is representative. Triangular approach enhances truthfulness of study

by combining methods, while reliability is the extent to which an instrument produces the same results in repeated trials, Saunders et al. (2016). The data of this research was collected from AHFoZ, ZIMSTAT and PGH and are reliable institutions in Zimbabwe. For reliability, the researcher gave the group same questionnaires at different intervals.

3.9 Data Analysis and Presentation

Data analysis was done using STATA 16 software. Descriptive statistics were calculated using frequencies. Distribution of participants by gender, level of employment, qualifications and period of employment were summarized using frequencies. Pearson Chi Squared test and Fischer Exact tests were used to assess independent association of these demographic factors with factors likely to affect cost recovery and the associated P-values to explore associations. The data had no missing values

3.10 Ethical Considerations

The researcher sought permission to conduct the study from the institution's management. Individuals were informed about the study and asked to fill consent forms before interviews. To ensure confidentiality, participants were advised not to put their names on questionnaires. Respondents were informed that data collected will be used for academic purposes only. Participants were assured that not participating in the interviews had no negative impact on their work or relationship with the researcher. Collected data was stored in electronic form in a password protected computer.

3.11 Chapter Summary

This chapter presented the research methodology, which focused on the research design, research approach, population, sample studied and research instruments. The data collection procedures, ethical considerations, validity and reliability and data analysis were

also part of the chapter. The next chapter shall focus on data presentation, analysis and discussion.

CHAPTER IV

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

The chapter looks at presentation, analysis, interpretation and discussion of data obtained from the research study.

4.2 Data Processing

Processing was done of the collected data into tables and tally sheets to make analysis easier. Responses were gathered and coded into numbers and values and analysed using STATA 16.

4.2.1 Demographic attributes of respondents

4.2.1.1 Qualifications of participants per institution

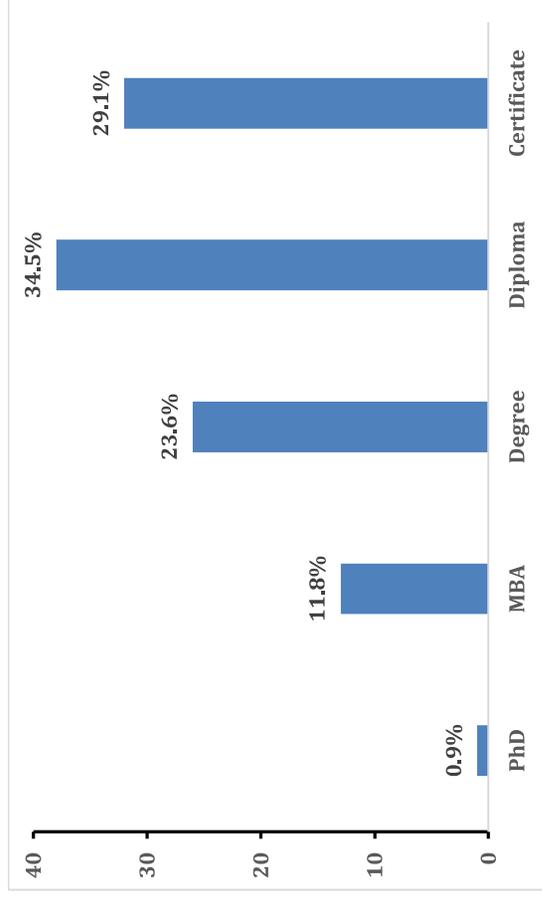


Figure II Qualifications of Participants

Source – primary data (2020)

Greater than 50% of respondents had a certificate or diploma see figure 4.1. 11.8% respondents had post graduate qualifications and 23.6% had first degree qualifications. The modal qualification is Diploma with 34.5%.

Table 4.1: Number of respondents by profession

| Position | Frequency | % contribution |
|---------------------------|------------|----------------|
| Director | 3 | 2.73 |
| Chief Accountant | 2 | 1.82 |
| Accountant | 12 | 10.91 |
| Assistant Accountant | 13 | 11.82 |
| Accounts Clerk | 21 | 19.09 |
| Departmental supervisor | 9 | 8.18 |
| Doctor | 5 | 4.55 |
| Nurse | 10 | 9.09 |
| Nurse Aide | 3 | 2.73 |
| Ward Secretary | 19 | 17.27 |
| Claims Assessor | 1 | 0.91 |
| MOHCC Chief Accountant | 1 | 0.91 |
| MOHCC Accountant | 3 | 2.73 |
| MOHCC A/Accountant | 1 | 0.91 |
| Claims Manager | 2 | 1.82 |
| Medical aid nurse | 3 | 2.73 |
| Private Sector Accountant | 2 | 1.82 |
| Total | 110 | 100 |

Source: primary data (2020)

Table 4.1 above shows the respondents' profession and the number enrolled in each profession. The dominant professions among the responders were accounts clerks and ward secretaries with 21 and 20 responders and highest contribution percentages of 19 and 17.7 respectively.

4.2.1.2 Gender of Participants

A total of 110 respondents were successfully interviewed (response rate 98%). 61(55%) were females while 49(45%) were males. The modal gender of participants is females.

4.2.1.3 Period of Employment for Participants

In fig 4.2 below, 81% of respondents had more than 5 years' experience, thus having vast knowledge about how costs are incurred at PGH. Nurses have roles of recording drugs for each patient, thus including quantity of drugs, correct patient's name and account, type and measurement of drugs and consumables. 6 out of 10 nurses who responded had more than 5 years in post, they would surely know the charging process in hospital wards, outpatients and casualty. The remaining 4 nurses had less than 3 years this would show their view point of less experience in relation to costing of used drugs. The modal period of employment is 10years and above with 42%.

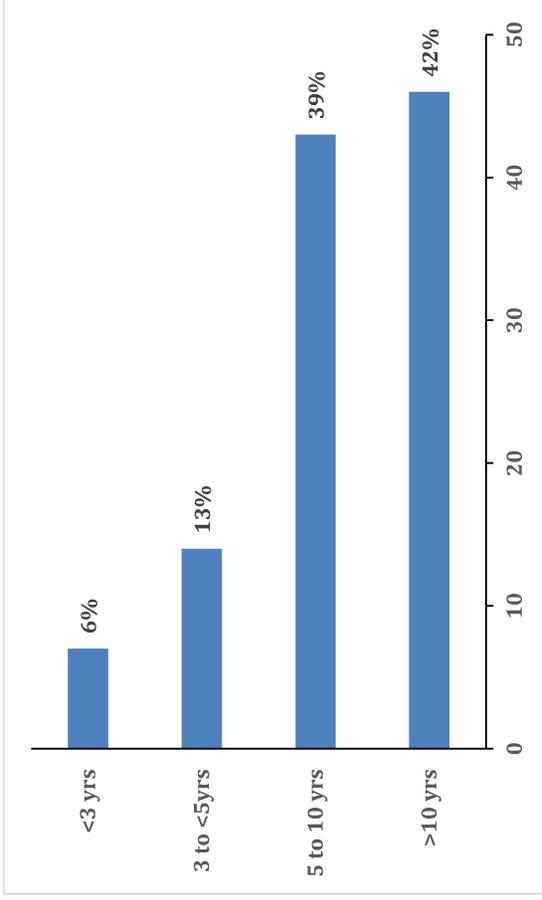


Figure III Period of employment

Source: Primary Data (2020)

4.3 Response rate

The following diagram presents the response from participants. Table 4.2 illustrates the response rate.

Table 4.1 Response Rate

| CATEGORY | PGH SAMPLE | TOTAL RESPONDED | RESPONSE RATE |
|-------------------------|------------|-----------------|---------------|
| Director | 3 | 3 | 100% |
| Chief Accountant | 2 | 2 | 100% |
| Accountant | 12 | 12 | 100% |
| Assistant Accountant | 14 | 13 | 93% |
| Accounts Clerk | 21 | 21 | 100% |
| Departmental Supervisor | 9 | 9 | 100% |
| Medical Doctor | 5 | 5 | 100% |
| Nurse | 10 | 10 | 100% |
| Nurse Aid | 3 | 3 | 100% |
| Ward secretary | 20 | 19 | 95% |
| Claims Assessor | 1 | 1 | 100% |
| Chief Accountant MoH | 1 | 1 | 100% |

| | | | |
|-----------------------------|------------|------------|------------|
| Accountant MoH | 3 | 3 | 100% |
| Assistant Accountant | 1 | 1 | 100% |
| Claims Manager-PSMAS/CIMAS | 2 | 2 | 100% |
| Medical Aid Nurse | 3 | 3 | 100% |
| Accountant from AHFoZ (Pvt) | 2 | 2 | 100% |
| Total | 112 | 110 | 98% |

Source: primary data (2020)

Table 4.2 above shows response rate by profession. Out of a sample target of 112 participants, 110 people responded representing an overall response rate of about 98%. 3 directors were interviewed, 1 physically and 2 on their cell phones or landlines. Not all questionnaires were personally administered due to pandemic movement restrictions hence cell phone and email interviews were possible options used in this research. 2 Chief accountants were also reached through their cell phones and office landlines. Most government workers had introduced work shifts and it was difficult to reach all targets physically. Overall response rate was 98%, which was high enough to render research results valid and reliable. In addition, researcher contacted stakeholders from Medical Aid Societies and the AHFoZ private companies on phones and emails.

4.4 Research Findings

4.4.1 Challenges faced by government hospitals on recovering costs

4.4.1.1 Situations with a direct negative effect on cost recovery in hospitals.

Respondents were required to select from guiding responses which were; to agree, strongly agree, disagree, strongly disagree or not sure. This question was asked in order to find out challenges being faced by people on the ground, doing daily costing processes. Responses received are presented in table 4.3 below.

Table 4.2 Distribution of challenges affecting cost recovery process by gender

| Challenge | Gender | | |
|--------------------------------|---------|---------|---------------------|
| | Male | Female | |
| Gvt Policy | | | |
| Strongly Agree | 3 (6%) | 3 (5%) | p=0.123, F=0.133 |
| Agree | 42(86%) | 43(71%) | |
| Not sure | 4 (8%) | 12(20%) | |
| Disagree | 0(0%) | 0(0%) | |
| Strongly disagree | 0(0%) | 3 (5%) | |
| Culture | | | |
| Strongly Agree | 13(27%) | 6 (10%) | p=0.109, F=0.08 |
| Agree | 32(65%) | 43(70%) | |
| Not sure | 1 (2%) | 1 (2%) | |
| Disagree | 1 (2%) | 3 (5%) | |
| Strongly disagree | 2(4%) | 8 (13%) | |
| Financial complications | | | |
| Strongly Agree | 4 (8%) | 3 (5%) | p=0.07, F=0.06 |
| Agree | 33(67%) | 43(70%) | |
| Not sure | 4 (8%) | 4 (7%) | |
| Disagree | 0 (0%) | 7 (11%) | |
| Strongly disagree | 8 (16%) | 4 (7%) | |
| Demotivation | | | |

| | | | |
|--------------------------------------|---------|---------|---------------------|
| Strongly Agree | 4(8%) | 7(11%) | p=0.571, F=0.61 |
| Agree | 31(63%) | 32(52%) | |
| Not sure | 1(2%) | 5(8%) | |
| Disagree | 3(6%) | 5(8%) | |
| Strongly disagree | 10(20%) | 12(20%) | |
| Accountability | | | |
| Strongly Agree | 2(4%) | 2(3%) | p=0.616, F=0.610 |
| Agree | 30(61%) | 43(70%) | |
| Not sure | 2(4%) | 1(2%) | |
| Disagree | 7(14%) | 4(7%) | |
| Strongly disagree | 8(16%) | 11(18%) | |
| Prevailing economic situation | | | |
| Strongly Agree | 14(29%) | 17(28%) | p=0.997, F=0.995 |
| Agree | 17(35%) | 20(33%) | |
| Not sure | 4(8%) | 5(8%) | |
| Disagree | 5(10%) | 6(10%) | |
| Strongly disagree | 9(18%) | 13(21%) | |

The modal responses were 86% of men and 71% of women who agreed that government policies were negatively affect cost recovery process at PGH. The least number was 3% of all women strongly disagreed to this statement. On issue of culture 65% of total men and 43% of total women agreed that culture was affecting the process of cost recovery in hospitals. Lowest response on culture was 2% of men and 2% of women who were not sure if culture had anything to do with cost recovery process. Highest respondents were 67% of males and 74% of females who agreed that financial complications were affecting cost recovery processes in hospitals. The least respondents 0% of males and 11% of females who disagree that financing complications had an effect on cost recovery. 63% of men and 52% of females agreed that staff motivation was negatively impacting cost recovery process in government

hospitals and only 2% and 8% were not sure. On accountability 61% of males and 70% of females agreed, the least response was 4% and 2% respectively of those were not sure. 35% of males and 33% of females who were agreeing that economic situation had a negative effect on cost recovery processes in hospitals, while 8% of both males and females not sure.

4.4.2 Factors that influence cost recovery process in government hospitals in Zimbabwe

Table 3.4 Factors influencing cost recovery in hospitals

| | Accounting environment | Method of costing | Accounting system | Organisational culture | Market conditions | Leadership commitment | Political environment | Staff development | Proportion paid services |
|--------------------------|------------------------|-------------------|-------------------|------------------------|-------------------|-----------------------|-----------------------|-------------------|--------------------------|
| Strongly Agree | 46(42%) | 44(40%) | 14(13%) | 50(46%) | 10(9%) | 51(46%) | 7(6%) | 45(41%) | 9(8%) |
| Agree | 27(25%) | 10(9%) | 30(27%) | 31(28%) | 11(10%) | 46(42%) | 13(12%) | 37(34%) | 71(65%) |
| Not sure | 26(24%) | 3(3%) | 2(2%) | 14(13%) | 11(13%) | 3(3%) | 0(0%) | 0(0%) | 8(7%) |
| Disagree | 6(5%) | 1(1%) | 16(15%) | 5(5%) | 33(30%) | 3(3%) | 39(36%) | 10(9%) | 0(0%) |
| Strongly disagree | 5(5%) | 52(47%) | 48(44%) | 10(9%) | 42(38%) | 7(6%) | 51(46%) | 18(16%) | 22(20%) |

Source: primary data (2020)

From table 4.4 above, 42% of respondents strongly agreed that accounting environment influences cost recovery process in a hospital set up. The costing method adopted by the hospital had 44 responses strongly agreeing that it is crucial for the cost recovery process. Most responders who commented proposed that a mixed and tailored approach will be the best for each unique hospital. The modal number of 71 respondents with 65% agreed that proportion of paying services has greater effect to cost recovery as PGH is a referral hospital for different types of patient. 59% of the respondents disagreed that accounting environment has an effect in cost recovery. On the same point 50 responses indicated that they strongly disagree that

organizational culture has an influence on cost recovery ability of a hospital. Other factors which were agreed to as essential for cost recovery include: availability of accounting systems, market conditions and staff development.

4.4.3 Improvements towards financially sustainable cost recovery methods at Parirenyatwa hospitals.

Table 4.4 Improvements on Cost Recovery

| | ABC Adoption | Training | Debt Management | Revenue collection | Public Private Partnerships | Outsourcing | Automation |
|--------------------------|--------------|----------|-----------------|--------------------|-----------------------------|-------------|------------|
| Strongly Agree | 63(57%) | 50(46%) | 7(6%) | 9(8%) | 6(5%) | 37(34%) | 6(5%) |
| Agree | 15(14%) | 26(24%) | 44(40%) | 53(48%) | 46(42%) | 35(32%) | 75(68%) |
| Not sure | 8(7%) | 5(5%) | 6(5%) | 3(2%) | 13(12%) | 5(5%) | 7(6%) |
| Disagree | 18(16%) | 17(16%) | 40(36%) | 35(32%) | 23(21%) | 23(21%) | 8(7%) |
| Strongly disagree | 6(5%) | 11(10%) | 13(12%) | 10(9%) | 22(20%) | 10(9%) | 14(13%) |

Source: primary data

Table 4.5 above of improvements on cost recovery for financial sustainability, the highest issue was ABC adoption with 57% of respondents who strongly agreed. Secondly respondents strongly agreed that training (46%) is crucial to aid in achievement of the financial sustainability, followed by outsourcing of Accounts services. On the other hand, Automation in overall is the highest when considering the agreed and strongly agreed responses of 73%. The least response of 2% came from those who did not know if revenue collection would be considered as improvement of financial sustainability. The last issue that respondents thought

would be ranked the least in improvements of financial sustainability with 46% agreeing and 38% disagree.

4.4.4 Synthesis of findings, theoretical framework and literature review

The findings of this research on Challenges encountered during cost recovery processes, a total of 110 people responded to this question. 91 out of 110 who responded agreed that government has policies which restrict hospitals from recovering full costs of products and services. This concurs with WHO (2018), indicated that the government operates as a system and government hospitals are part of the institutions used by the government to fulfill its objectives towards its people which will sometimes compromise financial sustainability standards. The government's exemption policy on maternity, children and the elderly was confirmed by the findings. MoHCC (2018) claimed that staff shortage was hampering quality of service being offered in government hospitals, hence the pressure to the treasury to unfreeze vacancy post in the Ministry of health. The findings on the issues to do with poor pricing and restrictive policies confirms the reference of MoHCC circular which gave consultation for out-patients and admission fees using the top bottom approach. Disposable income and economic conditions had a direct impact on the ability of the patient to pay for services and drugs administered on them. ZimSTATS had a pegged unemployment rate above 98% and this confirms the findings of the research that economic conditions were a serious drawback to cost recovery efforts of government hospitals.

A total of 94 out of 110 responses received indicated that they agreed with the point that hospital culture negatively influence cost recovery in government hospitals. The responders commented that government culture is of laziness, and poor accountability process. Staff demotivation received 74 responses agreeing that motivation of staff affects the efforts of the hospital to recover costs. People who commented indicated that salaries and working

conditions in hospitals were ridiculous and no human being will perform well under such conditions. An overall above 75% of the responses received indicated that responders were agreeing or strongly agreeing that; economic challenges, lack of accountability, staff demotivation complications in hospital financing, hospital culture and restrictive government policies are the main challenges affecting cost recovery process in government hospitals. Comments on the economic situation indicated that patients themselves were not able to pay because they were poor. Some comments indicated that most people in Zimbabwe are not employed hence hospitals are bound to offer services without immediate payment. Some comments indicated that the problem with illness is that it is not budgeted for and its involuntary to such an extent that when one gets sick one may fail to pay, this confirms the challenge of nature of services discussed in literature review of how the patient ends up in hospital which determine inability to pay bills immediately.

4.5 Chapter Summary

This chapter presented research findings. It focused on demographic findings, research findings on challenges affecting cost recovery processes in hospitals, factors influencing cost recovery processes in government hospitals, necessary improvements towards financially sustainable cost recovery methods in government hospitals and synthesis of findings, theoretical framework and literature review. The next chapter will present research conclusions and recommendations.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provided summary of research findings, conclusions and recommendations. Recommendations are drawn from the findings and suggestions for further studies highlighted.

5.2 Summary of research findings

5.2.1 Challenges faced by government hospitals during cost recovery processes implementation: -

The research found out that several challenges were affecting the process of cost recovery in government hospitals. The challenges were identified to include; economic hardships in Zimbabwe, poor accountability of resources in government hospitals, demotivated staff, financing complications of government hospitals, and cultural practices of government hospitals and also price restrictive government policies. Of the 110 responses 94 indicated that organisational culture was the main drawback in the process of costing of hospital services. Hospital financing was also mentioned as a challenge mainly emanating from various sources of finance for government institutions, some whose actual costs are not reviled to end users.

5.2.2 Factors which influence the cost recovery process in government hospitals in Zimbabwe: -

Several factors were identified to be influencing cost recovery practices in government hospital. It was found out that the accounting environment was a contributively factor of how well a cost recovery system may perform in a government hospital. Further, computer-based

accounting systems were mentioned as a key necessity to facilitate cost recovery process towards sustainable financial performance in government hospitals. Hospitals were found out to be using different costing methods for the different hospitals. Commitment of leadership was mentioned to be a contributing factor influencing cost recovery practices at government hospitals. The other factors which influence the cost recovery processes were found out to include; organisational culture, market practices, political environment and staff development. It was found out that non-financial professionals will also play a role of charging and costing of consumables hence the need for training of such.

5.2.4 Improvement towards financially sustainable cost recovery methods in government hospitals: -

It was identified that training of all personnel included in the process of charging patients was identified as a major necessity for improving of cost recovery processes. It was also found out that out sourcing of accounting services from accounting firms would improve recovery of cost in hospitals. After the billing of patients, collection of funds from debtors was also raised as a necessary improvement needed in government hospitals. The holistic revenue collection process was mentioned as a requirement, after charging then all other processes were necessary for an efficient cost recovery process. Government funded programmes were identified to be a source of revenue and following up of all funds from the government was key in cost recovery processes. Automation of procurement, stores, dispensing and billing of all chargeables was also indicated to be an effective way of improving cost recovery process

5.3 CONCLUSIONS

5.3.1: It can be concluded that effective cost recovery systems can positively influence financial sustainability of government hospitals. The following conclusions have also been drawn from the findings of this research:

5.3.2: That there is room for improvement in the way the government hospitals are conducting their cost recovery procedures and processes.

5.3.3: A viable financial sustainable system can be achieved by government hospitals which are committed to implement improvements.

5.3.4: That half of the cost of a job is being done by non-financial, untrained people (nurses and doctors) hence there is need for training of doctors, nurses and key people who do billing.

5.3.5: There is a global trend that most countries are shifting from using the traditional costing methods, and adapting to the use of advanced costing methods.

5.3.6: There is no defined costing system being used in government hospitals there is still a long way to implementation.

5.3.7: Hospitals rely on reimbursement schemes and therefore have no incentive and intention of using cost accounting as a management tool in managing resources or cost reduction initiatives.

5.3.8: ABC method has become the most preferred cost recovery method by the manufacturing and service sectors.

5.4 Recommendations

The following is a summary of the recommendations from the findings:

- 5.4.1:** Ministry of Health and Child Care should invest in information and technology for, costing of services, billing of services, stores management and procurement of drugs.
- 5.4.2:** MoHCC should benchmark to employees' salaries with international benchmarks.
- 5.4.3:** MoHCC should come up with a national financial framework for hospital spending in order to avoid careless spending and corruption.
- 5.4.4:** MoHCC should agree and establish a costing framework for all government hospitals, that framework should be IT system based for audit trails.
- 5.4.5:** Minister of Health is recommended to adopt I.T system based costing systems and should be monitored online at all connected terminals by approved viewers and auditors.
- 5.4.6:** The government is further recommended to engage in Policy Monitoring and Evaluation in the Health sector.
- 5.4.7:** The government is also recommended to find ways of immediately replenishing the drugs and services which would have been consumed by the groups which are exempted.
- 5.4.8:** The Minister of health and child care should then implement an examinable module during the training courses for doctors and nurses covering preliminary costing elements.
- 5.4.9:** The hospital administration should spearhead and encourage the full participation of medical and nursing staff in the development, training and implementation of the ABC method.
- 5.4.10:** Parirenyatwa hospital should implement the ABC method as a cost recovery method which is good.

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APPENDICES



Appendix I: QUESTIONNAIRE

Dear respondent I am a student at the Midlands State University (MSU) who is studying an Honours Degree in Accounting. I am doing a dissertation entitled assessing the effectiveness of cost recovery methods for financial sustainability of government hospitals in Zimbabwe. I am therefore kindly requesting you to assist me by completing this questionnaire. Please note that the information collected will not capture your name and will solemnly be used for the purpose of the study.

Your cooperation is deeply appreciated to provide the relevant information. I assure you that the information will be kept confidential.

Supervisor Mr T. Machipisa
Signature

Student Rujeko O. Shereni
Signature

SECTION A : DEMOGRAPHIC INFORMATION

Please answer the questions that follow and tick the answer that matches your opinion.

1. Gender

Male

Female

2. Highest level of education attained

Diploma level

Undergraduate degree

Post Graduate degree

3. For how long have you been employed by the Ministry?

Less than 3 years

3 to less than 5 years

5 to less than 10 years

10 years or more

4. What position do you hold in the Ministry?

Director

Chief Accountant

Accountant

Assistant Accountant

- Accounts Clerk
- Departmental Supervisor
- Medical Doctor
- Nurse
- Nurse Aid
- Ward secretary
- Claims Assessor

SECTION B : CHALLENGES FACED BY GOVERNMENT HOSPITALS DURING COST RECOVERY PROCESS.

To identify challenges faced by government hospitals during cost recovery process .

To what extent do you agree or disagree that the following challenges affect cost recovery process implementation at Parirenyatwa Hospitals? Please tick the appropriate column against each challenge: Use the key below:

SD-Strongly Disagree: D-Disagree : NS-Not Sure: A-Agree: SA-Strongly Agree

| | Rating | | | | |
|---------------------------------|--------|---|----|---|----|
| | SD | D | NS | A | SA |
| Restrictive Government policies | | | | | |

| | | | | | | |
|---|--|--|--|--|--|--|
| Culture of the hospital | | | | | | |
| Hospital financing complications | | | | | | |
| Demotivated staff | | | | | | |
| Lack of accountability and responsibility at the hospital | | | | | | |
| Economic situation in Zimbabwe | | | | | | |

If there are any other additional challenges that affect the implementation of cost recovery process faced at Parirenyatwa hospital, please indicate below.

SECTION C : FACTORS THAT INFLUENCE COST RECOVERY PROCESS IN GOVERNMENT HOSPITALS IN ZIMBABWE.

To find out factors that influence cost recovery process in government hospitals in Zimbabwe

To what extent do you agree to the following factors that influence the cost recovery process at Parirenyatwa Hospitals? Please tick in the appropriate column.

SD-Strongly Disagree: D-Disagree: NS-Not Sure: A-Agree: SA-Strongly Agree

| | Rating | | | | |
|--|--------|---|----|---|----|
| | SD | D | NS | A | SA |
| Accounting environment | | | | | |
| Method of costing adopted | | | | | |
| Accounting systems | | | | | |
| Organisational Culture | | | | | |
| Market conditions | | | | | |
| Leadership commitment | | | | | |
| Political environment | | | | | |
| Staff development\Human resources | | | | | |
| Proportion of services which are paying services | | | | | |

State other factors which hinder cost recovery process in government hospitals in Zimbabwe

SECTION D: IMPROVEMENTS TOWARDS FINANCIALLY SUSTAINABLE COST RECOVERY METHODS AT PARENAYATWA HOSPITALS.

To what extent do you agree that the following statements in regard to improved financial sustainability by implementation of effective cost recovery method?

| | Rating | | | | |
|---|----------------------|-------------|-------------|----------|-------------------|
| | 1. Strongly disagree | 2. Disagree | 3. Not sure | 4. Agree | 5. Strongly agree |
| Adopting to Activity Based Costing (ABC) as a costing method for services | | | | | |
| Training of staff | | | | | |
| Debt management | | | | | |
| Improved revenue collection | | | | | |
| Follow up of payments of exempted groups | | | | | |

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| Partnership with private institutions | | | | | | | |
| Outsource efficient accounting services | | | | | | | |
| Automate Procurement, stores, dispensing and billing processes | | | | | | | |

Appendix II: INTERVIEW GUIDE

TO IDENTIFY CHALLENGES FACED BY GOVERNMENT HOSPITALS DURING COST RECOVERY PROCESS.

Which challenge affect cost recovery process most at your institution?

What makes hospital financing complicated at your institution?

Which cultural effects affect your cost recovery process most?

TO FINDOUT FACTORS THAT INFLUENCE COST RECOVERY PROCESS IN GOVERNMENT HOSPITALS IN ZIMBABWE.

Which factors are necessary for a proper cost recovery process in hospitals?

Which is the most important factor which of the factors you mentioned above?

Out of 5 what mark do you give to your institution's current cost recovery practices?

TO SUGGEST IMPROVEMENTS TOWARDS FINANCIALLY SUSTAINABLE COST RECOVERY METHODS AT PARIRENYATWA HOSPITALS.

What should be done to improve cost recovery processes in government hospitals?

Which issues do you think can be addressed at institution level

How do you recommend your institution to implement your recommendations for improved cost recovery practices at your institution?

To your opinion, how long will it take for your institution to implement your suggestions if they were to accept them.

Do you have any other comments you wish to make on the subject?

Thank you

APPENDIX III: RESEARCH APPROVAL



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FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

June 2020

To Whom It May Concern

Dear Sir

[Handwritten signature]
PARENTHOLD GROUP OF
HOSPITALS
SENIOR ADMIN. OFFICER
2020-07-13
P.O. BOX 67100
CAUSEWAY, HARARE

REQUEST TO CARRY OUT RESEARCH

Name..... **RUJEKO OLGA SHEREMI** Reg No. **R179595X**

is a bonafide student at this institution in the department of Accounting. He/ She is carrying out research on **AN ASSESSMENT OF THE EFFECTIVENESS OF COST RECOVERY METHODS FOR FINANCIAL SUSTAINABILITY IN GOVERNMENT HOSPITALS: CASE OF PARENTHOLD HOSPITALS.**

Any information you give him/her will be used solely for academic purposes.

Please assist him/her in any way possible.

Yours faithfully

[Handwritten signature]
Dr. E. Mashiri
CHAIRPERSON